Koha
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Koha

Introduction
Koha is an open source integrated library management system (ILS).

• http://en.wikipedia.org/wiki/Integrated_library_system
• http://en.wikipedia.org/wiki/Koha_(software)
• http://en.wikipedia.org/wiki/Koha_(custom)
• http://koha-community.org
• http://koha-community.org/demo
• http://www.librarytechnology.org/map.pl?ILS=Koha

For library staff and clients
In addition to the items listed below, the major advantage of Koha is the large community that supports Koha [1]. Koha is fully web based and has a mobile theme, therefore Koha is very BYOD [2] friendly for Linux, Android, MAC and Windows internet devices.

Koha is device operating system and internet browser agnostic, therefore it is available to all devices and users.

• An interoperable open standards based ILS.
• Stable and reliable web based service
• A web service that is fast and secure

For library systems management
• Easy to install
• Easy to setup
• Easy to style
• Easy to backup
• Easy to upgrade

Basically the Koha developers are trying to make it the "Wordpress" of open library management systems.

Information

Features
• http://koha-community.org/files/2013/05/Koha-3.12-release-notes.pdf
• http://koha-community.org/koha-3-12-4-released

News
• http://koha-community.org/koha-community-newsletter-august-2013
• http://koha-community.org/koha-community-newsletter-june-2013
• http://koha-community.org/koha-community-newsletter-may-2013
Support

Below are links to web sites for support and help.

It is expected that some contribution is made in return to the Koha community for the use of their freely given software.

This can take the form of software contributions or simply providing added support yourself by announcing yourself on the mailing list.

- Official documentation: http://koha-community.org/documentation
- The Koha community wiki: http://wiki.koha-community.org/wiki/Main_Page
- Community mailing lists: http://koha-community.org/support/koha-mailing-lists
- Community IRC: http://koha-community.org/get-involved/irc
- Paid support: http://koha-community.org/support/paid-support
- Community support: http://koha-community.org/support

Social Networks

- LinkedIn Group at: http://www.linkedin.com/groups?home=&gid=671467&trk=anet_ug_hm
- Google + community at: https://plus.google.com/u/0/communities/108301839510288716136
- Twitter account at: https://twitter.com/kohails
- Facebook at: https://www.facebook.com/kohails

Deployment

Preparation

1. **Decide on a hostname for the server, that is short and easy to remember and that you are sure will not change in the long term. See the following for more details:**
   
   4. If you are doing a test installation on a local virtual server, then use "localhost" as the hostname for the Koha system.

2. This wiki guide assumes that you have access to expert linux systems administration and web 2.0 developer resources to perform the installation, customisation and provide long term support.

3. Discuss and prepare for long term support of an open library management system, by drawing up service level agreements or memorandum of understandings with significant partners such as the main campus IT department, campus press and campus open scholarly communications office [3].

4. Allocate server resources, be they bare metal or a virtual machine, for a production version of Koha and for a backup server in another geographical location.

5. Ensure your server has inbound and outbound access to the internet via your campus proxy/firewall using TCP on port 80 and 443.

6. Ensure your server has inbound and outbound access on the campus network using TCP on port 8080.
Installation and configuration

- Koha Installation
- Koha Post-Installation
- Koha Interoperability
- Koha Training

Web site connection details

OPAC
- The OPAC, or client page, can be accessed at:
  http://name-of-koha-server

Admin
- The library admin interface can be accessed at:
  http://name-of-koha-server:8080

Demo
The Stellenbosch University library is evaluating the following site to host small book collections on campus which do not qualify for full branch status.
The Open Library and Project Gutenberg catalogs for 2013 have been added.
  http://lib.sun.ac.za

References

Software
- http://wiki.koha-community.org/wiki/Koha_on_ubuntu_-_packages
- http://wiki.koha-community.org/wiki/Commands_provided_by_the_Debian_packages
- http://wiki.koha-community.org/wiki/Koha_3.x_on_Debian_Squeeze
- http://wiki.koha-community.org/wiki/Moving_an_installation_from_a_regular_install_to_the_Debian_packages
- https://github.com/Koha-Community/Koha

Documentation

Other Instructions
- http://kohageek.pbworks.com/w/page/61133887/koha-installation-ubuntu-packages
- https://www.digitalocean.com/community/articles/how-to-install-koha-library-software-on-an-ubuntu-12-04-x32-vps
• http://ethiokoha.wordpress.com/documentations/installation

PDF Version of Wiki Help Guide

References
Installation

Koha/Installation

Introduction
It is strongly recommended that you use the "packages" installation method which is designed to simplify and streamline the installation, configuration and upgrades of Koha.

Step 1 - Install Ubuntu 12.04 LTS server software on a bare metal or virtual machine.
• During installation create a "koha" admin user.

Step 2 - Install the LAMP stack
• During installation install the "LAMP" stack.

Step 3 - Enable the Koha software repository
• After installation add the following to /etc/apt/sources.list.d/koha.list.
  ```
echo deb http://debian.koha-community.org/koha squeeze main | sudo tee /etc/apt/sources.list.d/koha.list
wget -O- http://debian.koha-community.org/koha/gpg.asc | sudo apt-key add -
  ```
• Do a software upgrade.
  ```
sudo apt-get update
sudo apt-get dist-upgrade
  ```

Step 4 - Install Koha packages
• Install the koha packages
  ```
sudo apt-get install koha koha-common bibutils etckeeper
  ```

Step 5 - Initial configuration
To configure your server for use, edit /etc/koha/koha-sites.conf with details about your site. You may need to create this file.

Some example content would be:
```
KOHASITE="SULIS OPAC" # Change this to the name of your site
OPACPORT="80"  # TCP listening port for the users' interface (if you skip this, the apache default of 80 will be used)
INTRAPORT="8080" # TCP listening port for the administration interface
```
Step 6 - Create a "single" Koha library instance

- Create a koha library database
  
  sudo koha-create --create-db library

- Enable email for the "library" instance
  
  sudo koha-email-enable library

Step 7 - Prepare the Apache2 web server

- Setup web server listening ports.
  
  sudo nano /etc/apache2/ports.conf

  Check the following for an example of listening ports

  #NameVirtualHost *:80
  Listen 80
  Listen 8080

- Setup apache2 modules
  
  sudo a2enmod rewrite
  
  sudo a2enmod deflate

- Disable the default website. Remember to disable this after a software upgrade when using the packages method.
  
  sudo a2dissite 000-default

- Disable the default koha website. Remember to disable this after a software upgrade when using the packages method.
  
  sudo a2dissite koha

- Enable the custom "library" web site.
  
  sudo a2ensite library

- Restart the apache2 web server
  
  sudo service apache2 restart
Step 8 - Do the Koha web installation

- **Reboot the server** and then connect to the following URL to configure the KOHA webapp.

  http://name-of-koha-server:8080

The user name to log in with will be `koha_library` and the password will be near the end of `/etc/koha/sites/library/koha-conf.xml`

To view the password, use this command:

  `sudo xmlstarlet sel -t -v 'yazgfs/config/pass' /etc/koha/sites/library/koha-conf.xml`

Click on one of the screenshots below to view webapp config.
Web installer > Step 2

Database settings:

- database type: mysql
- database name: koha_library
- database host: localhost
- database port: 3306 (probably OK if blank)
- database user: koha_library

Connection established.
Database koha_library exists.
User koha_library has all required privileges on database koha_library.
Click 'Next' to continue

Web installer > Step 3

Now we're ready to create the database tables and fill them with some default data.
Click 'Next' to continue

Web installer > Step 3

Success

- Database tables created

Click 'Next' to continue

Web installer > Step 3

We are ready to do some basic configuration. Please install basic configuration settings to continue the installation.

Web installer > Step 3

Select your MARC flavor

- Marc21
- Unimarc

Click 'Next' to continue
Selecting Default Settings

MARC frameworks: MARC21

Mandatory

- Default MARC21 Standard Authority types:
  - Personal Name
  - Corporate Name
  - Meeting Name
  - Uniform Title
  - Chronological Term
  - Topical Term
  - Geographic Name
  - Gene/Form Term

(authorities_normal_marc21)
- Default MARC21 bibliographic framework.
  (marc21_framework_DEFAULT)

mysql data added

- sysprefs.sql

mandatory data added

- auth_values.sql
- authorities_normal_marc21.sql
- class_sources.sql
- marc21_framework_DEFAULT.sql
- message_transport_types.sql
- sample_notices.sql
- sample_notices_message_attributes.sql
- sample_notices_message_transports.sql
- stopwords.sql
- sqlite3_registry.sql
- userflags.sql
- userpermissions.sql

All done!

Installation complete.

Click on 'Finish' to complete and load the Koha Staff Interface.

Finish

Return to Koha wiki page
Post-Installation

Koha/Post-Installation

Step 1 - Setup email delivery

• Install mail delivery agent

    `sudo apt-get install postfix`

When asked for type of configuration, select **Internet with smarthost**. The **smarthost** is your campus email server, for example at Stellenbosch University that server is: mail.sun.ac.za

• Deliver koha user email to designated recipients

    `sudo nano /etc/aliases`

See example below. *Replace the example email addresses with your email addresses.*

```
# Added by installer for initial user
root:      me@my.edu
koha:   me@my.edu, you@my.edu
```

After saving the file, run the following command.

```
sudo newaliases
```

Enable command line email utils

```
sudo apt-get install mailx
```

Send a test email to yourself, by typing and pressing enter.

```
mail -s "Test from KOHA server" root, me@my.edu
```

Type in some content for the email, then press **CTL+d** to deliver the email.

You can check the log at **/var/log/mail.log** for more info of delivery.

Help

• https://help.ubuntu.com/community/Postfix

Tips

• https://github.com/colinsc/koha/blob/master/misc/maintenance/borrowers-force-messaging-defaults

Step 2 - Setup custom website style

• Select the "ccsr" theme using the **opacthemes** parameter in the admin interface.

• Setup the **opacsmallimage** in the admin interface.

• See the highlighted red boxes in the screenshot below for customisable areas of the OPAC web interface.
The following folder contains the CCS files to style the OPAC client depending on which theme you selected.

/usr/share/koha/opac/htdocs/opac-tmpl

The following folder contains the CCS files to style the admin interface.

/usr/share/koha/intranet/htdocs/intranet-tmpl

Help

- http://libill.hartford.edu/koha/development/index.asp

- http://learnlayout.com
- http://www.csstutorial.net
- http://htmldog.com
- http://www.fontsquirrel.com
- http://validator.w3.org
- http://jigsaw.w3.org/css-validator
Step 3 - Enable LDAP user ID and authentication

To do.

Help

- http://kohablog.wordpress.com/category/koha/ldap
- http://www.slideshare.net/ohiocore/koha-integration-ldap

Step 4 - Enable Plugins


Below is a brief procedure on how to add a "plugins" preference to Koha. Remember, with the packages installation method, these paths must be modified to point to your instance of Koha.

- To enable Koha plugins, the system preference UseKohaPlugins must be enabled.
- Create the directory /var/lib/koha/plugins
- Add the following lines to your koha-conf.xml file
  <pluginsdir>/var/lib/koha/plugins</pluginsdir>
  <enable_plugins>1</enable_plugins>"
- Add the following line to your koha-httpd.conf file
  Alias /plugin/ "/var/lib/koha/plugins/"
- Restart your webserver
- Access the plugins system from the "More" pulldown
- Upload the example plugin file provided here.

Return to Koha wiki page
Interoperability

Koha/Interoperability

Koha can import/export data and read data from other catalogs. This wiki page attempts to document the interoperability of Koha with other book cataloging systems.

Records

- http://en.wikipedia.org/wiki/Authority_control

MARC

- http://lib2.dss.go.th/elib/marc21/examples.html
- http://www.loc.gov/marc/marctools.html

Migration Documentation

- http://opensource-ils.cci.utk.edu/content/koha-migration-process
- http://opensource-ils.cci.utk.edu/content/publications

Sample MARC Data/Records

- http://bywatersolutions.com/2013/06/20/ebook-marc-for-koha

MARC records for purchase


How to import MARC bibliographic records

The following procedure describes how to import sample records from Springer E-Books, Project Gutenberg and the Open Library. Check the relevant sites for the most recent records.
Step 1

Install MARCEDIT \[1\]. Then download the MARC files from here: http://web.lib.sun.ac.za/files/marc/or get the latest from the links below.

http://archive.org/details/marc_lendable_books

http://www.gutenberg.org/wiki/Gutenberg:Offline_Catalogs

http://www.springer.com/?referer=springer.com&SGWID=1-148802-3020-0-0

Step 2

Add the 952 tag and fields required by Koha to the exported file using MARCEDIT. See this tutorial \[2\]. These are:

952$a | Owning Library | Branch code
952$b | Holding Library | Branch code
952$y | Koha item type | Coded value

Step 3

If importing a very large amount of records, it is a good idea to stop the automated zebra index update. See "/etc/cron.d/koha" if you used the packages installation method.

Import the .mrc file using the Koha admin interface. Or use the /usr/share/koha/bin/migration_tools/bulkmarcimport.pl tool. See below for help.

```
NAME
bulkmarcimport.pl - Import bibliographic/authority records into Koha

USAGE
$ export KOHA_CONF=/etc/koha.conf
$ perl misc/migration_tools/bulkmarcimport.pl -d -commit 1000 \$
    -file /home/jmf/koha.mrc -n 3000

WARNING
Don't use this script before you've entered and checked your MARC parameters tables twice (or more!). Otherwise, the import won't work correctly and you will get invalid data.

DESCRIPTION
-h This version/help screen

-b, -biblios
Type of import: bibliographic records

-a, -authorities
Type of import: authority records
```
-file=FILE
   The FILE to import

-\v Verbose mode. 1 means "some infos", 2 means "MARC dumping"

-f\k Turn off foreign key checks during import.

-n=NUMBER
   The NUMBER of records to import. If missing, all the file is imported

-o, -offset=NUMBER
   File offset before importing, ie NUMBER of records to skip.

-commit=NUMBER
   The NUMBER of records to wait before performing a 'commit' operation

-l File logs actions done for each record and their status into file

-t, -test
   Test mode: parses the file, saying what he would do, but doing nothing.

-s Skip automatic conversion of MARC-8 to UTF-8. This option is provided for debugging.

-c=CHARACTERISTIC
   The CHARACTERISTIC MARC flavour. At the moment, only MARC21 and UNIMARC are supported. MARC21 by default.

-d Delete EVERYTHING related to biblio in koha-DB before import. Tables: biblio, biblioitems, items

-m=FORMAT
   Input file FORMAT: MARCXML or ISO2709 (defaults to ISO2709)

-authtypes
   file yamlfile with authoritiesTypes and distinguishable record field in order to store the correct authtype

-yaml
   yaml file format a yaml file with ids

-filter
   list of fields that will not be imported. Can be any from 000 to 999 or field, subfield and subfield's matching value such as
200avalue

-insert
  if set, only insert when possible

-update
  if set, only updates (any biblio should have a matching record)

-all
  if set, do whatever is required

-k, -keepids=<FIELD>
  Field store ids in FIELD (useful for authorities, where 001 contains the authid for Koha, that can contain a very valuable info for authorities coming from LOC or BNF. useless for biblios probably)

-match=<FIELD>
  FIELD matchindex,fieldtomatch matchpoint to use to deduplicate fieldtomatch can be either 001 to 999 or field and list of subfields as such 100abcde

-i,-isbn
  If set, a search will be done on isbn, and, if the same isbn is found, the biblio is not added. It's another method to deduplicate. -match & -isbn can be both set.

-cleanisbn

-x=TAG
  Source bib TAG for reporting the source bib number

-y=SUBFIELD
  Source SUBFIELD for reporting the source bib number

-idmap=FILE
  FILE for the koha bib and source id

-keepids
  Store ids in 009 (usefull for authorities, where 001 contains the authid for Koha, that can contain a very valuable info for authorities coming from LOC or BNF. useless for biblios probably)

-dedupbarcode
If set, whenever a duplicate barcode is detected, it is removed and the attempt to add the record is retried, thereby giving the record a blank barcode. This is useful when something has set barcodes to be a biblio ID, or similar (usually other software.)

-framework
This is the code for the framework that the requested records will have attached to them when they are created. If not specified, then the default framework will be used.

perl v5.14.2                      2013-07-29                 BULKMARCIMPORT(1)

Step 4
Run one of the following to fully re-index:

- **sudo /usr/sbin/koha-rebuild-zebra -a -b -f -v library** (Re-indexes the "library" instance only)
- **sudo /usr/sbin/koha-rebuild-zebra -v /usr/sbin/koha-list** (Re-indexes all the instances)
- **sudo /usr/share/koha/bin/migration_tools/rebuild_solr.pl (If using the SOLR server)**

If importing a very large amount of records, it is a good idea to stop the automated zebra index update. See "/etc/cron.d/koha" if you used the packages installation method.

Step 5
Check the following if the OPAC search does not work.

http://koha-community.org/faqs/zebra-indexing-wont-work-fix-it-aka-search-stuff-up-help

Return to Koha wiki page

References
Training

Koha/Training

Books
• http://www.packtpub.com/koha-3-library-management-system/book

Communities
• http://ethiokoha.wordpress.com

General
• http://koha-community.org/category/koha-training
• http://bywatersolutions.com/solutions/koha-training
• http://bywatersolutions.com/education/koha-training-handouts
• http://libriotech.no/english
• http://opensource-ils.cci.utk.edu/content/koha-annotated-training-links
• http://os-ol.org/training/koha

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